

Title (en)

CAMERA MODULE, MANUFACTURING METHOD, AND ELECTRONIC DEVICE

Title (de)

KAMERAMODUL, HERSTELLUNGSVERFAHREN UND ELEKTRONISCHE VORRICHTUNG

Title (fr)

MODULE DE CAMÉRA, PROCÉDÉ DE FABRICATION ET DISPOSITIF ÉLECTRONIQUE

Publication

**EP 3518032 A4 20190828 (EN)**

Application

**EP 17852846 A 20170908**

Priority

- JP 2016185347 A 20160923
- JP 2017032392 W 20170908

Abstract (en)

[origin: EP3518032A1] The present technology relates to a camera module, a production method, and an electronic device that can prevent reduction of optical module positioning accuracy or heat dissipation performance. An image pickup element is joined on one face of a flexible board so that a light receiving surface of the image pickup element is exposed through an opening of the flexible board, and an optical module is joined on an other face of the flexible board so that light enters to the image pickup element through the opening. A reinforcing member is joined on the one face of the flexible board at a circumference of the image pickup element and reinforces a joining part of the flexible board where the optical module is joined. The reinforcing member is joined so as to face an area including at least a part of the joining part and is formed so that a part of the circumference of the image pickup element is kept open. The present technology can be applied to, for example, a camera module in which the image pickup element and the optical module are integrated.

IPC 8 full level

**G03B 17/02** (2006.01); **G02B 7/02** (2006.01); **H04N 5/225** (2006.01)

CPC (source: EP KR US)

**G02B 7/02** (2013.01 - EP KR); **G03B 17/02** (2013.01 - EP KR); **G03B 17/55** (2013.01 - KR); **G03B 30/00** (2021.01 - KR); **H04N 23/54** (2023.01 - KR US); **H04N 23/55** (2023.01 - KR US); **H04N 23/80** (2023.01 - EP KR US); **H05K 1/0203** (2013.01 - KR); **H05K 1/0274** (2013.01 - US); **H05K 1/0281** (2013.01 - KR US)

Citation (search report)

- [X1] US 2005035421 A1 20050217 - KAYANUMA YASUAKI [JP], et al
- [X1] US 2011084118 A1 20110414 - WADA EIJI [JP], et al
- [A] US 2007183773 A1 20070809 - AOKI SUSUMU [JP], et al
- [A] US 2005285973 A1 20051229 - SINGH HARPUNEET [US], et al
- See also references of WO 2018056069A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

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**EP 3518032 A1 20190731**; **EP 3518032 A4 20190828**; **EP 3518032 B1 20210113**; CN 109716229 A 20190503; CN 109716229 B 20210917; JP 6880048 B2 20210602; JP WO2018056069 A1 20190704; KR 102413918 B1 20220627; KR 20190055084 A 20190522; TW 201817221 A 20180501; TW I746620 B 20211121; US 11356584 B2 20220607; US 2021281721 A1 20210909; WO 2018056069 A1 20180329

DOCDB simple family (application)

**EP 17852846 A 20170908**; CN 201780056492 A 20170908; JP 2017032392 W 20170908; JP 2018540958 A 20170908; KR 20197007444 A 20170908; TW 106128348 A 20170822; US 201716328433 A 20170908